

REMARKS

The present amendments serve to insert the limitation that the tapered structures or concentrators are of generally parabolic shape. Resulting redundant claims have been canceled.

The Examiner notes that the listing of references in the specification is not a proper information disclosure statement. Applicants understand this and submitted separate IDS documents. The information disclosure statements (IDS) submitted on 2/20/2004, 3/19/2004, & 5/16/2005 have been considered by the examiner.

Claim 32 stands objected to because of the following informalities: the term "its" in claim 32 is a relative term, which renders the claim indefinite. The term "its" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Applicants have amended the claim to replace the objected to language.

Claims 1-19, 32-34, & 37 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ge et al. (USPN 5,839,812). According to the Examiner:

Regarding claim 1, Ge et al. discloses an array of tapered structures (the mirror reflective cones), each the tapered structure having a light input aperture (e.g., Figure 6b) and a larger light output aperture, wherein the inner surface of each the tapered structure is adapted to reflect off-axis light incident and at the input aperture to the output aperture (e.g., Figure 3).

Further, the Examiner notes:

Regarding claim 3, Ge et al. discloses the array of tapered structures comprise an array of concentrators extending between an input aperture on an input surface and an output aperture on an output surface, each the concentrator having a generally parabolic shape (e.g., column 2, lines 3-45), wherein the input surface is in contact with a light guide plate, and each the concentrator has an index of refraction substantially equal to the index of refraction of the light guide plate (air, refractive index $n=1$, transparent material, refractive index $n=1.5$).

Claim 1 has now been amended to include the limitation that the tapered structures of concentrators are parabolic taken from a light input aperture

to a light output aperture. Support may be found throughout the specification, at claim 41, and in the drawings. It is noted that the Ge patent is directed to conical structures. The dictionary definition of a cone is a solid object having a flat base and having all of its external surfaces comprising straight lines passing through a common vertex. In contrast, a parabola has curved sides. The amendment makes it clear that the claimed shape is that exhibited by a section passing through the inlet and outlet apertures or through the axis of the structure. The passage referred to by the Examiner at col. 2 / lines 30-45 pertains to the shape of the base (a section perpendicular to the axis) and not to a section passing through the inlet and outlet apertures or through the axis of the structure. Thus, it is true that a cone can have a circular, elliptical or other shaped base, but it must have the surface lines passing through a vertex or else it is not a cone. A section of a cone including the axis in the direction referred to herein would be a triangle. A parabola is not a cone. Thus it is clear that Ge does not anticipate the rejected claims.

Claims 40-44 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ge et al. (USPN 5,839,812). According to the Examiner:

Regarding claims 40-44, Ge et al. discloses the structural limitations of applicant's claimed invention, explained above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to recite mere claiming of a use of a particular structure, which has been clearly disclosed by the prior art reference, Ge et al. (Emphasis supplied)

Since the structure is not disclosed by Ge for the reasons above, this rejection is invalid.

As further evidence, the enclosed Declaration of Junwon Lee compares the brightness enhancement obtained by a cone vs. a parabolic structure. The brightness of the parabolic structure in near normal directions is upwards of 65% better than for the corresponding cone.

In view of the foregoing amendments and remarks, the Examiner is respectfully requested to withdraw the outstanding rejection and to pass the subject application to Allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'A. Kluegel', written over a horizontal line.

Attorney for Applicant(s)
Registration No. 25,518

Arthur E. Kluegel/dlm
Rochester, NY 14650
Telephone: 585-477-2625
Facsimile: 585-477-1148

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.